1947 Catalog

VETTERLE & REINELT

Hybridizing Gardens

CAPITOLA • CALIFORNIA

TO OUR PATRONS

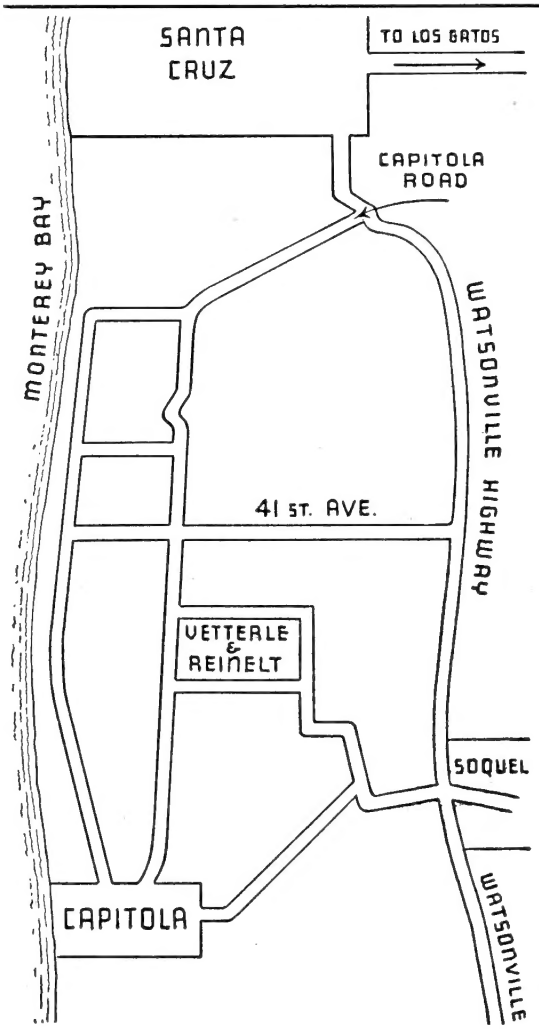
In these days of crisis, with shortage of staff, we are all doing our utmost to "carry on" and to give your orders the same prompt attention as hitherto but ask your indulgence for any delays or lapses which may occur in shipping your orders or in answering your inquiries.

Our cultural directions have been made as explicit as possible, but in cases of doubt your local library can usually offer an excellent book of reference, and many universities make a special study of plant culture and are very glad to give you their findings.

We are quite confident that your co-operation in meeting the existing conditions will be extended to us.

We would here like to express our sincere thanks to our many customers who have so kindly written us letters of appreciation. We would like to acknowledge each one personally but feel that you will understand that this is not possible.

We deeply appreciate your patronage and will do all possible to warrant a continuance of this.



Visitors are cordially invited to inspect our plantings during the season.

The Polyanthus Primroses are at their best during March and the first part of April...In April and May the first crop of Delphinium seedlings is at its height.

The breeding stock of tuberous begonias are in their prime the first part of July. The lath-houses with thousands of seedlings in bloom are at their best during August and September.

How to Get There . . . We are situated four miles out of Santa Cruz, as can be seen on the map. When coming from Santa Cruz, take the first side road to the right when past city limits and follow it to our nursery. If coming from Watsonville, turn left in Soquel, as indicated on map.

RUFFLED NOVELTIES 1947

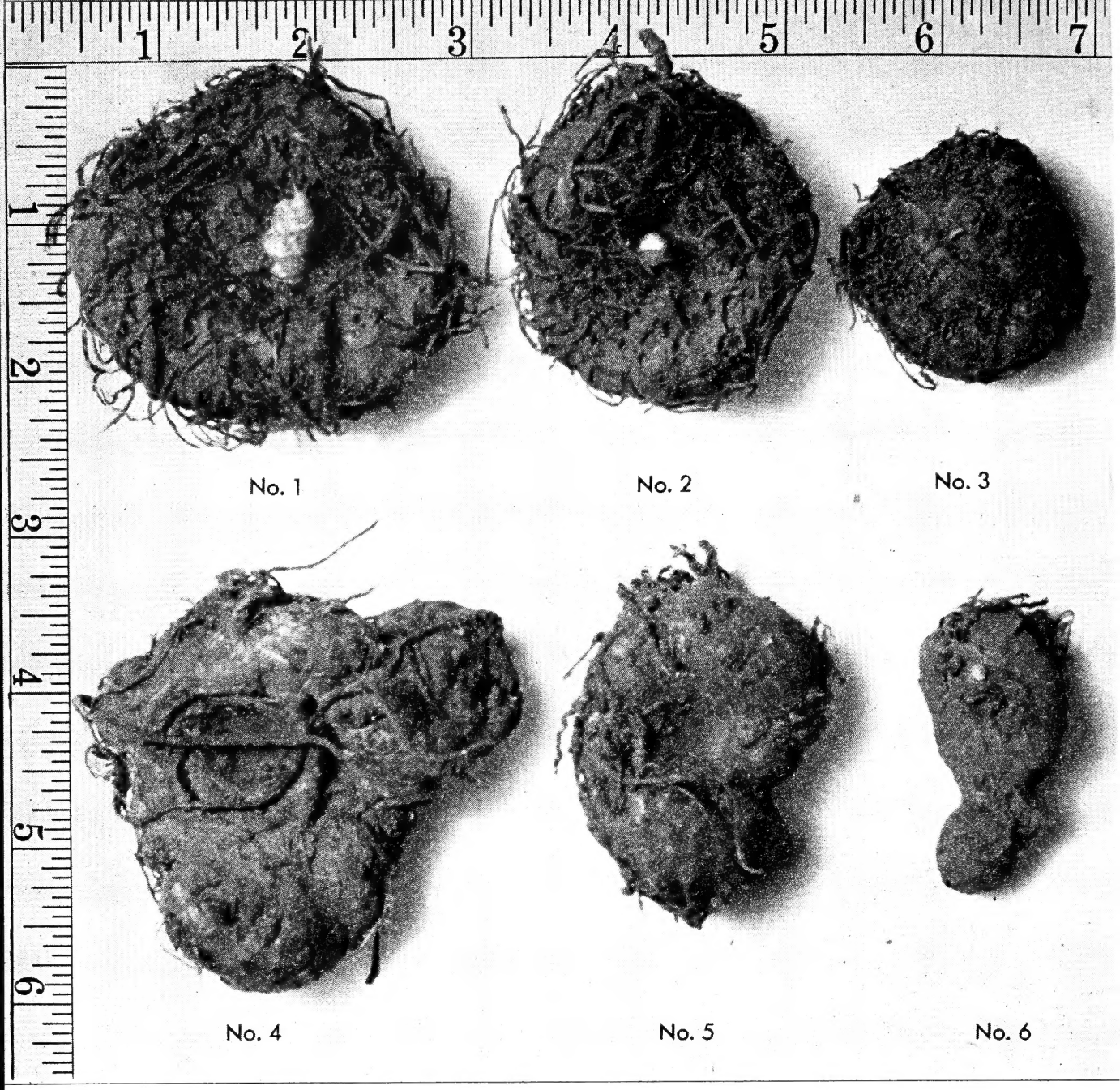
For several years we have been interbreeding the best forms of Double Camellia type with the Fimbriata Plena to produce eventually a new Ruffled Camellia type which would combine the best characters of both. This year a number of crosses gave excellent results so that we are able to supply a limited amount of these new, beautiful forms.

Only a few of the very best are chosen, those that have very large flowers and very fine form. Both our front cover and the above picture represent variations of the new type. Some of them are more like huge Fimbriata Plena, others more like Camellia, and the majority of them exceed in beauty both forms shown in pictures.

The color range represents most of the shades with the majority in light salmon tones. As they are grown in mixture, we are not able to separate each color exactly, and are offering them only in mixture.

Tubers . . . Delivery, January-March. Large size . . . . $1.50 each; $15.00 per dozen.
Medium size . . $1.00 each; $10.00 per dozen.

Seed . . . In mixture only, $4.00 per packet; $2.00 per half packet.



BEGONIA TUBERS

The great majority of our tubers are produced annually from seed and ripen with us approximately the end of December. The size will vary anywhere from less than 1 in. in diameter to as much as 3 in. in diameter. The larger the bulb, the larger the plant one can expect. *However, the size and quality of flowers are not governed by the size of the bulb.*

For commercial distribution they are graded into three sizes, as shown in picture on page 3. Delivery, January to end of March.

SEEDLING TUBERS

1. *Large size.* 2 in. up in diameter. This is the most preferred size, which produces large plants and if grown in pots requires minimum 8 in. or 9 in. containers.

2. *Medium size.* 1½ in. to 2 in. in diameter. Often this size is used for smaller pots, 7 in. in size, and will give excellent results for bedding.

3. *Small size.* 1 to 1½ in. in diameter. This size will not give large plants the first season but it is satisfactory for bedding purposes or small pot plants. We do not offer these in our retail trade, as they require professional experience to bring best results.

CUTTING TUBERS

Nos. 4, 5 and 6. In some hanging varieties we offer tubers produced from cuttings, which differ only in form from the tubers produced from seedling plants. Cuttings often have to be grown for two years before they form sufficiently large tubers for sale. The cost of production and additional growing naturally raises the price of propagated varieties.

No cutting tubers
available at present.

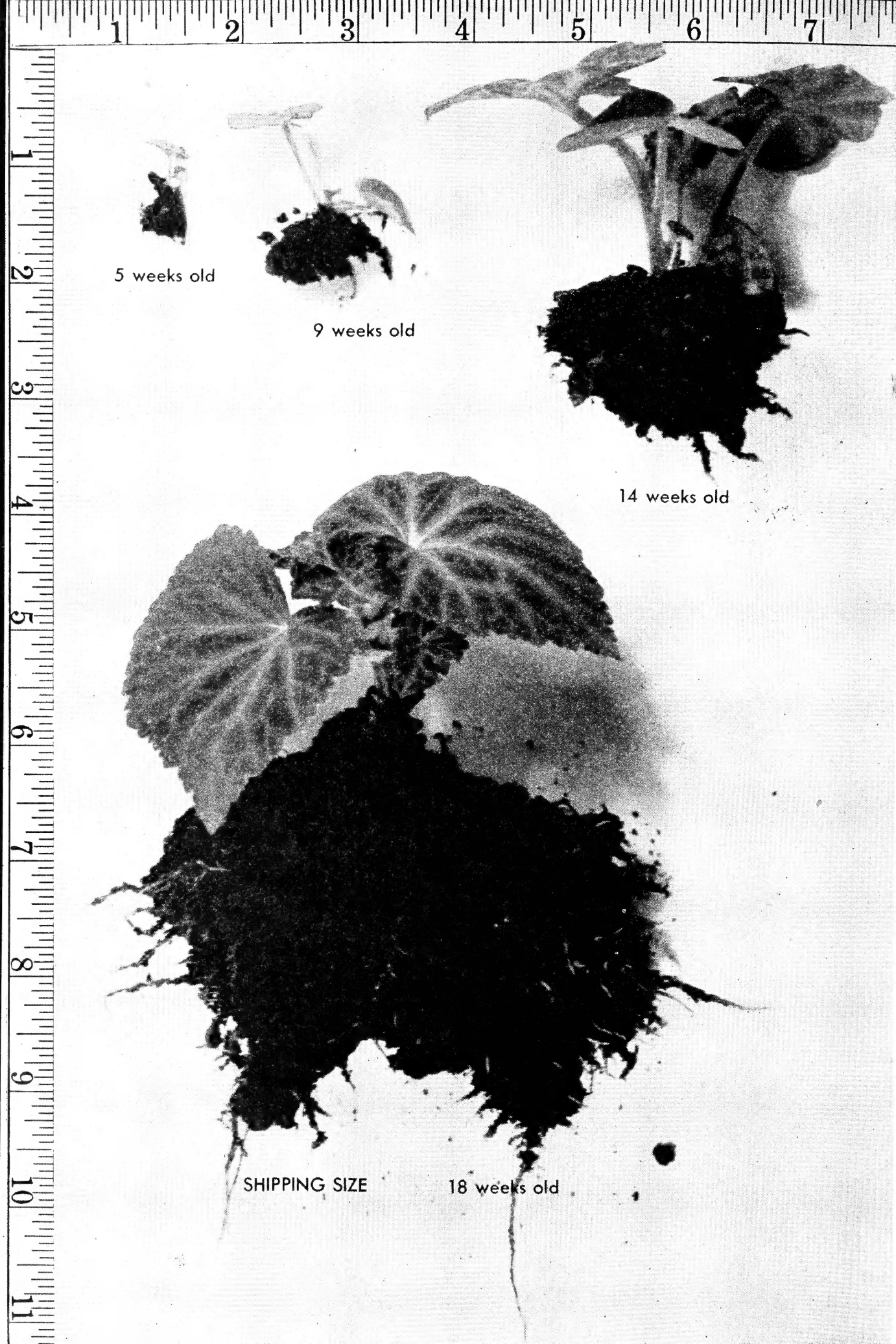
CULTURE OF TUBEROUS BEGONIAS

Tubers . . . If early flowering is desired place tubers during January and February in a warm place in open trays. Moisten slightly once in a while until they come to life. As they begin sprouting, plant in flats in a mixture of peat and sand, leaf mold and sand, or peat alone, all of which are good media for developing a root system. Plant tubers 3 to 4 in. apart, so that they are ½ in. below the surface. Keep uniformly moist but not too wet, in a warm place, well lighted, until 3 or 4 in. of growth develops. Then plant in a permanent location or in pots, as desired. The front of the plant is always where the tips of the leaves are pointing. *Often if dormant tubers are planted in open ground, especially if it is too cold or wet, a number of them may rot and the planting will be uneven, with some coming earlier and some later, with the plants facing in haphazard ways.* Started first in flats, they will develop a splendid root system which is necessary for the forming of fine specimen plants.

Transplanting . . . Before the plants become too large and crowded in flats, transplant in open ground or pots, taking care not to disturb the root system too much. Outdoors any light soil containing a lot of humus will grow good begonias. Heavy soils should have a strong application of well-rotted manure, leaf mold or sand to lighten them. Light, gravelly or sandy soils will benefit greatly by the application of peat, leaf mold or well-rotted manure. If planting in pots, soil should be much lighter than that used outdoors; two-thirds coarse leaf mold and one-third sand or sandy loam will give excellent results.

Feeding . . . If well-grown specimens are desired, additional feeding will be required, either with fish or cottonseed meals, both of which give fine results. The best method of using these fertilizers is to mix them with the soil that goes into the lower half of the pot, so that the roots will gradually reach into this area. If planting outdoors, a heaping tablespoonful for small plants and two for large plants will be sufficient when placed in the lower half of the planting hole. In pots a tablespoonful for a 6-in. pot or a small handful for an 8-in. pot will be enough to carry the plants through the season. See that the fertilizer does not come into contact with the stem or leaves of the plant, as both form a mold in the early stage of fermenting which would attack the growing tissues and destroy the plant.

Watering . . . After transplanting, gentle overhead watering is best until the plants are well established. *Too heavy watering during the young stage may pack the soil, keeping it too wet, thereby causing the soil to go sour.* Later, when the plants are in full growth, they will require a steady supply of moisture as the root system is shallow and any drying out will give a set-back to normal development.


5 weeks old
9 weeks old
14 weeks old
SHIPPING SIZE
18 weeks old

TUBEROUS BEGONIA PLANTS

Seedling Plants . . . Commercially all tuberous begonias are produced annually from seed. Seed sown during January and February will produce flowering plants, from July on, and a tuber upon maturing in December. From then on the tuber, each year, grows in size forming a larger and larger plant. For the benefit of those who have no facilities or time for starting tubers, or for growing begonias from seed, *we offer seedling plants of all types and colors listed on pages* 7, 8, 9, and 10.

These seedlings are twice transplanted and hardened off before shipping so that upon arrival they can be planted directly outdoors in a permanent location. The shipping season begins May 15 and ends June 15. Later plantings would not bring sufficiently large plants to give enough flowers the same season. Plants that are planted in May and early June will begin to bloom by the end of July and reach their height of flowering season during August-September and continuing on into November.

Regions with warm summers and long cool autumns, such as most parts of California, will get better results from seedlings than from tubers. Tubers start blooming earlier and the flowers often burn during the hot summer months. If one desires a long season of flowering, tubers can be planted for early bloom and seedlings for continuing the season until the end of autumn. For bedding purposes seedlings are preferable as they grow uniformly and form a mass of color.

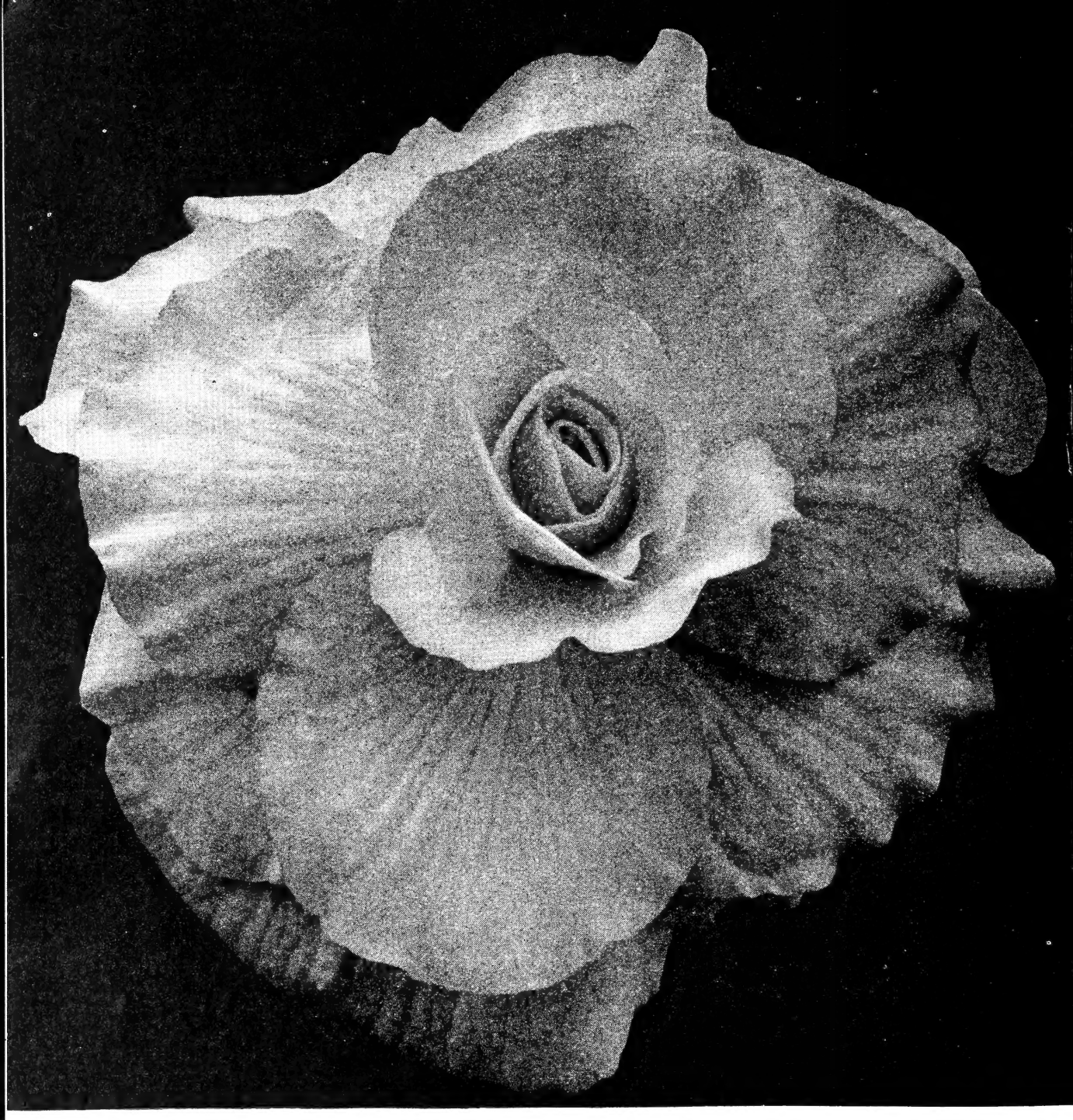
Seedlings are shipped successfully to all parts of the United States but we guarantee safe delivery only on the Pacific Coast and cannot be responsible for shipments east of the Rocky Mountains.

CULTURE OF TUBEROUS BEGONIAS

Seed . . . Sow from January to March. Place one or two inches of gravel in flats or seed pans, to insure good drainage, over which place a fairly coarse mixture of two-thirds leaf mold and one-third peat, about one inch deep. Smooth the surface with the same mixture, finely sifted, not more than one-eighth inch deep but do not press it down. It is necessary for the surface to be of a spongy character, so that when the seed germinates, the young roots can get into it. If surface is too fine and packed, the seedlings will often fall over, as the young roots are unable to get in . . . Place the pans in shallow water until thoroughly soaked up from below, then broadcast the seed. Cover with glass and a sheet of paper or keep it in the dark until germination takes place. Night temperature of 65 to 75 degrees Fahrenheit is necessary for quick germination. Lower temperature than 65 degrees will considerably slow up germination, with poorer results . . . As soon as germination takes place, take the paper off and in three or four days lift the glass also, otherwise the little seedlings will get too spindly. Warm temperature, protection from direct sunlight, and uniform moisture, are absolutely necessary. Even a slight drying out of the surface will be fatal to the delicate young plants. Very gentle overhead watering should be used when necessary . . . Dampening off will occur only if flats are kept too wet in greenhouse without proper ventilation. Watering with a weak solution of Clorox, about 2 to 4 per cent, we found as best cure and preventive.

Transplanting . . . When the third leaves are developed, transplant one inch apart in flats containing the same mixture as for sowing. No finely-sifted surface is necessary any more. Do not put more than one to one and one-half inches deep of soil in your flats. Deep flats filled with several inches of soil are not necessary. Usually they do not drain well, soil will get sour, and checking of the growth will be the result. Before they get too crowded, transplant in the same manner again farther apart, until strong enough to be planted out in the open or, if desired, potted up. If planting in open ground, enrich the soil liberally with well-rotted cow or sheep manure and a sprinkling of bone meal. If soil is heavy, add plenty of either leaf mold, peat or sand or a mixture of all, so that the ground will be light and porous. Plant in a shaded position, such as under the trees or north side of the house, where direct sunlight cannot reach them. Keep well watered; fine, overhead sprinkling preferred.

Digging and Storage . . . In autumn, when the foliage turns yellow, withdraw the water gradually and when all growth dies down entirely, take out, wash off all soil, taking care not to bruise the tubers, dry in sunlight for a day or two until thoroughly dry; then store in open flats in cool, dry place. *See that all particles of the old stem are removed until healthy tissue shows; otherwise, if left on, they will decay and destroy the tuber.*



DOUBLE CAMELLIA TYPE

The largest and most popular of the double types. Individual flowers, from 5 to 8 in. in diameter, resemble camellias and roses in all forms and variations of color.

COLORS

Solid, Uniform Colors, with slight variation only:

White	Rose	American Beauty	Cardinal Red	Dark Red	Orange
Pink	Crimson Rose	Salmon Red	Scarlet	Yellow	Flame Orange

Salmon Shades, varying more or less within themselves:

Salmon Rose Shades	Blush and Pink Salmons	Apricot
Apricot and Orange Salmons	Yellow and Apricot Salmons	

PRICE

Tubers . . . Delivery, January-March. Large size . . . 45c each; $4.50 per dozen; $32.00 per 100.
Medium size . 35c each; $3.50 per dozen; $26.00 per 100.

Seedling Plants . . . Delivery, May-June. $2.50 per dozen; $18.00 per 100. F.O.B. Capitola.

Seed . . . $2.00 per packet; $1.00 per half packet. (Straight colors or mixture.)

DOUBLE CAMELLIA PICOTEE SHADES

We developed this group by inter-crossing the large camellia type with the small marmarota type. The flowers are slightly smaller in some instances but of beautiful camellia form, with two-toned combinations of color with a definitely contrasting edge.

COLORS

Red Shades | Pink-Rose Shades | Salmon Shades

PRICE

Tubers . . . Delivery, January-March. Large size . . . 45c each; $4.50 per dozen; $32.00 per 100.
Medium size . 35c each; $3.50 per dozen; $26.00 per 100.

Seedling Plants . . . Delivery, May-June. $2.50 per dozen; $18.00 per 100. F.O.B. Capitola.

Seed . . . $2.00 per packet; $1.00 per half packet. (Straight colors or mixture.)

DOUBLE HANGING TYPE

Its hanging habit, with great masses of blooms, makes them favored for the decoration of greenhouses, open verandas or sun porches, where they can be protected against strong winds and light. We have been improving this type by interbreeding them for a number of years with the double Camellia type for the size of flower and variety of color. Our this year's offerings are both further advanced, combining medium-sized flowers and good hanging habit.

COLORS

White	Rose	Salmon Rose	Yellow
Pink	Crimson Rose	Scarlet	Orange

PRICE

Tubers . . . Delivery, January-March. Large size . . . 45c each; $4.50 per dozen; $32.00 per 100.
Medium size . 35c each; $3.50 per dozen; $26.00 per 100.

Seedling Plants . . . Delivery, May-June. $2.50 per dozen; $18.00 per 100. F.O.B. Capitola.

Seed . . . $2.00 per packet; $1.00 per half packet. (Straight colors or mixture.)

FIMBRIATA PLENA TYPE

Double frilled, or often called Carnation type. This group has been enormously improved in the last few years, the flowers in some cases reaching the size of the Camellia type, with more and more refined form. Its strong, bushy growth makes it exceptionally desirable for bedding and pot plants.

COLORS

White	Rose	Salmon Red	Orange
Blush	Crimson Rose	Yellow	Scarlet
Pink	Salmon	Apricot	Dark Red

PRICE

Tubers . . . Delivery, January-March. Large size . . . 45c each; $4.50 per dozen; $32.00 per 100.
Medium size . 35c each; $3.50 per dozen; $26.00 per 100.

Seedling Plants . . . Delivery, May-June. $2.50 per dozen; $18.00 per 100. F.O.B. Capitola.

Seed . . $2.00 per packet; $1.00 per half packet. (Straight colors or mixture.)

NAMED VARIETIES

OF

HANGING BASKETS

ARE WITHDRAWN

FOR 1947

Due to the labor shortage we were unable to do any propagations

CULTURE OF HANGING BEGONIAS

Hanging basket Begonias have the same cultural requirements as all other types, with minor exceptions. For good results one should have large tubers, as the larger tuber will have more shoots come from it and consequently the plant will be larger and more effective. Tubers can be started from January to March, the same as any other type, but when the growth reaches three or four inches transplant them in a light mixture of soil; if possible, two-thirds coarse leaf mold and one-third sand, as they are very sensitive to perfect drainage. Containers should be large enough; a minimum of 8 inches in diameter for small tubers and up to 12 inches for large ones. Shallow pots, if possible glazed, are better than wire or any other type basket, as the plants do not dry out in these types so severely and can produce far better growth. Wire baskets, lined with moss, can be utilized but one can not expect to grow excellent specimens by this method. Tubers started in peat will develop a sufficiently large root system so that they can be planted immediately in pots large enough to carry them through the season.

Feeding . . . It will be necessary to mix a small handful of fish meal with the soil going into the lower half of the pot, which will supply the plant with sufficient nutrients to start with. Later in summer, when the plant shows a decline in growth, another small handful dug into a shallow trench around the edge of the pot and covered with soil will revive it completely, and bring a new profusion of blooms.

Pinching . . . Some types, which do not show more than one or two shoots at the beginning of the season, should have the heart pinched out when the growth reaches the first flower bud. This will induce the side shoots to develop fully and form a better balanced plant.

NOTICE

Due to shortage of help and material we have discontinued growing tubers of all single types and Rosebud type for the present. However, we still can supply seed of Rosebud at $2.00 per packet and $1.00 per half packet.

CHOICE SELECT VARIETIES OF TUBEROUS BEGONIAS

Contrary to the practice of propagating named varieties of tuberous Begonias, we offer selected seedling tubers instead. Propagation of individual varieties is costly and slow, so that by the time a sufficient amount has been reproduced for introduction they are already obsolete as compared with seedlings. Breeding is advancing so rapidly that today's choice is the discard of tomorrow. **During flowering season we select and mark all the choicest new seedlings which are above average in size, form and color. We are offering tubers of these to connoisseurs who desire only the finest for their gardens.**

PRICE OF CHOICE SELECT VARIETIES

Tubers Delivered January to March

Large size . . . . . 75c each; $7.50 per dozen; $58.00 per 100.

Medium size . . . 60c each; $6.00 per dozen; $45.00 per 100.

NEW ROSE FORM

Our aim, eventually, is to change the Camellia form into a pure, large Rose form, which is the most beautiful yet achieved in tuberous begonias. It is very difficult to reproduce from seed and even by crossing the very best flowers, only here and there one comes up to the desired standards.

These are specially marked in the field when in bloom, and this year we have a small amount of those to offer, mostly in light salmon tones, pink, rose, and crimson rose shades.

The flowers are of the largest size and finest form yet produced, the forerunners of which are exhibited amongst our breeding stock in our greenhouses.

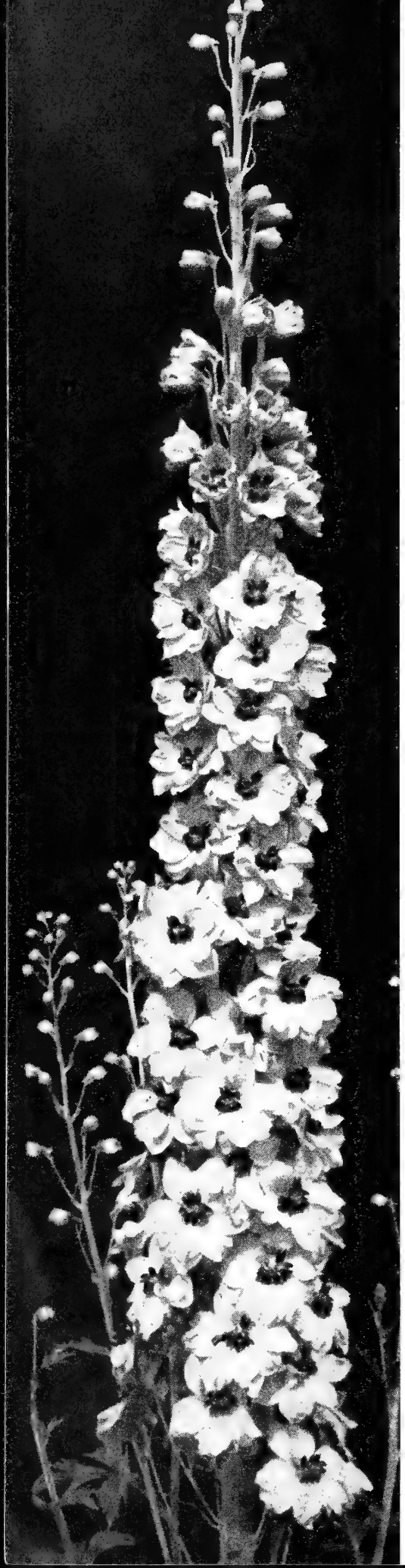
Price . . . (Medium to large tubers) $1.50 each; $15.00 per dozen.

SPECIAL HINTS

To grow Begonias to their utmost perfection requires, of course, the finest quality of tubers. Size does not matter; smaller tubers of a fine variety will produce as large a flower as the larger tubers, but the latter will form larger plants with more flowers. To gain on flower size, break out the weaker sprouts when tubers come to life—leaving only one of the strongest which will then develop into a very strong stalk bearing larger flowers than if several were left. This does not apply to the hanging type, where as many shoots as possible are wanted for good specimens.

Careful growing and feeding, as described on previous pages, should be followed. Disbudding of female flowers is of no help whatsoever. Very large flowers, until the end of the season, can be had by cutting out the sideshoots when young, so that all strength goes into the single stalk. This can not be performed on all varieties; only where one can cut out the young offshoot in the axil without bruising the tissue of the stem. Dusting wounds with charcoal or exposing them to sunlight for a time will heal them perfectly.

If large tubers, which form more shoots, are available, these can be left until 3 to 4 inches high. Then cut the weaker ones at the base, so they contain the basal ring, and then root them in sand in a closed propagation bed, either with or without bottom heat. They will form roots in 3-6 weeks and can then be potted and will bloom nicely the same season, although only a small tuber will be formed. In this manner extra choice plants can be propagated. The cutting tubers in their second year do not branch as heavily as seedling tubers and consequently bring the largest and most perfect blossoms. One can preserve fine varieties by this method and gradually accumulate a collection of perfect plants.



PACIFIC STRAIN OF

Although a comparatively short time has passed since our strain of Delphinium was introduced to the gardening world, the enthusiastic acclaim of amateurs and professionals alike has made us feel that we have contributed a step in the progress of better Delphiniums.

The qualities we look for in Delphiniums are not only huge flowers and spikes, regardless of other characteristics, but on the contrary we often use plants of smaller size if they have outstanding qualities in color or form. Our aim is to produce large flowers properly proportioned to the size of spikes, so as to maintain balance and retain the grace of the entire plant. Another important feature in our developments is comparative mildew-resistance. Over ten acres of seedlings are being grown this year for selection, from which only the finest members combining all the desirable characteristics are retained for seed production. This enables us to produce very high quality seed, giving customers the advantage of the newest developments.

Contrary to the popular practice of naming individual plants, our aim is to produce a group of individual plants resembling each other as closely as possible, keep interbreeding them until the progeny brings a high percentage of specimens true to description, and then introduce it as a named series. In this manner we can offer new progressions of each series each year as the progeny always supersedes the parents. The names of our Delphinium series, with the exception of the blues, which have descriptive names, have been chosen from Tennyson's "Idylls of the King."

WHITE INTRODUCTIONS

Galahad Series . . . Our greatest achievement in giant whites, fully worthy of its name, which possesses all the qualities one expects to find in a fine Delphinium. The standard attained in this series is perhaps responsible for the wide popularity it met, ranking in demand next to the blues. The clear white flowers, with white bees, are of large size, reaching often 3 inches in diameter, combined with glistening, heavy texture. The 1947 series are outstanding in size, texture and purity of color, which we only dreamed of when the first series of Galahad was introduced.

Percival Series . . . A companion to the Galahad Series, of equally good quality. The large, glistening white flowers with strongly contrasting black bees are beautifully spaced on long, tapering spikes. Very vigorous and free growing habit.

Price of Cross-Pollinated Seed

$2.50 per packet (over 400 seeds); $1.25 per half packet (over 200 seeds).

DELPHINIUM HYBRIDS

NAMED SERIES

RECENT INTRODUCTIONS

Lancelot . . . A clear lilac self with white bee. A rare color in delphinium and one of the most beautiful. It has well-balanced spikes and carries large flowers of fine round form.

Guinevere Series . . . A clear, pink-lavender self, with white bee; with very large individual flowers averaging up to 3 inches in diameter. This is a true exhibition type and a beautiful garden plant.

Cameliard Series . . . A clear lavender self with white bee, possessing classical perfection of form of the individual flowers, which are very round and attain very large size, averaging 3 inches in diameter. Beautifully balanced spikes, combined with excellent growing habits.

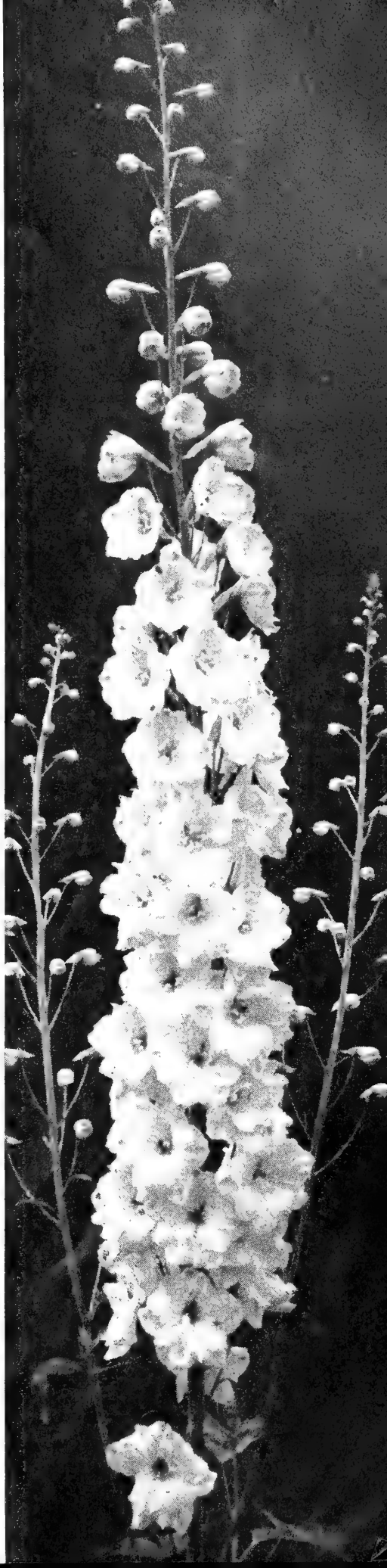
King Arthur Series . . . This is still one of the most brilliant Delphiniums we have so far developed. The color is a rich, royal purple, with a velvety texture and large white bee, and the beautifully formed, long spikes are carried on thin, woody stems.

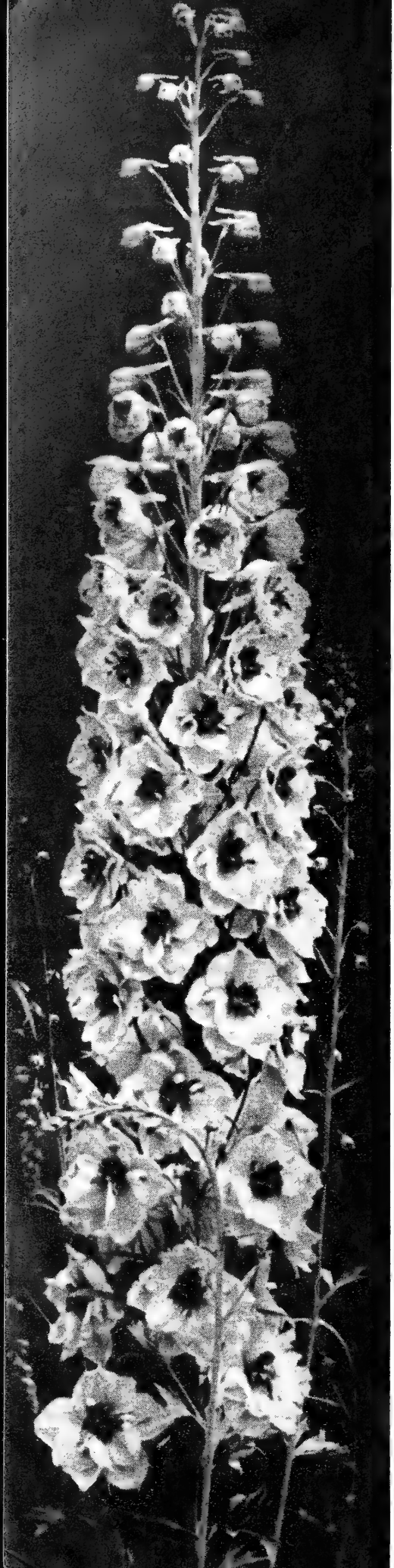
Black Knight Series . . . The darkest violet. Individual flowers 2½ to 3 inches in diameter; of beautiful round form, with heavy velvety texture, which gives the color luminosity and vividness not seen before in Delphinium. Very long, well-formed spikes; a true show flower with black bees.

Round Table Series . . . As the name implies, this represents all of the color combinations of the Knights and their Ladies which will eventually be introduced. This year some three hundred different crosses were used to make up this group, combining all the newest color developments and possessing size that will make them invaluable for show purposes.

Price of Cross-Pollinated Seed

$2.50 per packet (over 400 seeds); $1.25 per half packet (over 200 seeds). Collection of any six series on pages 13 and 14: Six packets $12.00. Six half packets $6.00.





PACIFIC STRAIN OF

BLUE SERIES

The rarest color in flowers is blue, and perhaps this accounts to some degree for the popularity of Delphinium, as here it is represented at its best.

We have paid particular attention to the breeding of the blue shades and the progress of the last five years is quite astonishing when one compares the new series with those we had five years ago.

The brilliancy and clearness of color, size of blooms and spikes, leaves little to be desired.

We are using descriptive names for the blues and will gradually bring out all the shades and combinations as they are developed.

Summer Skies Series . . . Light, heavenly blue of a summer sky with white bees representing the fleecy clouds; a color long sought in the large hybrid Delphinium. The 1947 series has reached stability where they come almost 100% true to color from seed, with such a uniform growth that many experts who saw the planting last spring at our nursery, thought they were propagated from cuttings and could scarcely believe that they were seedlings. As a class this is the finest blue Delphinium today in existence.

Blue Bird Series . . . A true blue Delphinium has been the hardest thing to produce and we have been reserving the name Blue Bird to signify our best achievement in this color. We can safely recommend this series as being the clearest medium blues, with white bees. They not only come true to color but carry well-formed, round flowers 2½ inches in diameter, on very long, graceful spikes. The habit is all one could desire in modern Delphinium and this series sets a new standard in blues of today.

Blue Jay Series . . . Every Delphinium lover seeks the true blue color, which is so rare in nature and so difficult to obtain. These series are our bid toward attaining it. The color is striking, clear medium to dark blue; very intense and alive, with dark, contrasting bee.

Blue Mixture . . . Besides the named blue series we can supply a complete mixture of blues ranging from lightest to darkest blue with white, fawn and black bees. Each shade when stabilized will eventually be named, but at present all new crosses for that purpose are blocked into one mixture containing all the above series and a great many unusual new shades of blue. A complete mixture of all the named series listed on pages 13, 14, and 15 can also be supplied.

Complete Mixture of all shades.

Complete Mixture of all Named Series.

Price of Cross-Pollinated Seed

$2.50 per packet (over 400 seeds).
$1.25 per half packet (over 200 seeds).

DELPHINIUM HYBRIDS

Delphinium Plants . . . During March and April and September and October we are offering *strong, young plants,* in twelve assorted shades, as marked for cross-pollinized seed. Transplanted, they will grow rapidly on and bring far better results in a shorter time than the old clumps. We prefer distribution of young seedlings rather than the one- or two-year-old clumps, which very seldom bring good results, as they are quite exhausted and it takes a year at best to get them re-established, during which time the flowers are not at their best. Young seedlings will produce show specimens within four or five months after planting and continue blooming for several years. In California interior valleys where the climate is too warm, autumn planting, September and October, is preferable. Plants having time to establish good root systems during winter will bring beautiful spikes in early spring. Cooler regions will give good results from both autumn and spring plantings, except in heavy, cold soils, where spring planting is preferable.

Seedling Plants . . . $3.50 per dozen; $26.00 per 100. F.O.B. Capitola.

Self-Pollinated Seed . . . Besides the cross-pollinated seed, which is produced only in small quantities, we also supply self-pollinated seed to cover the commercial trade. Of the one hundred thousand seedlings which we grow annually, 40 to 60 per cent are rogued out, leaving only the best for the production of self-pollenized seed which we list below.

NAMED SERIES

For full descriptions see pages 13, 14 and 15.

1. Percival
2. Galahad
3. Guinevere
4. Cameliard
5. Lancelot
6. King Arthur
7. Black Knight
8. Round Table
9. Summer Skies
10. Blue Bird
11. Blue Jay
12. Blue Mixture
13. Named Series Mixture
14. Complete Mixture All Shades

Price of Self-Pollinated Seed

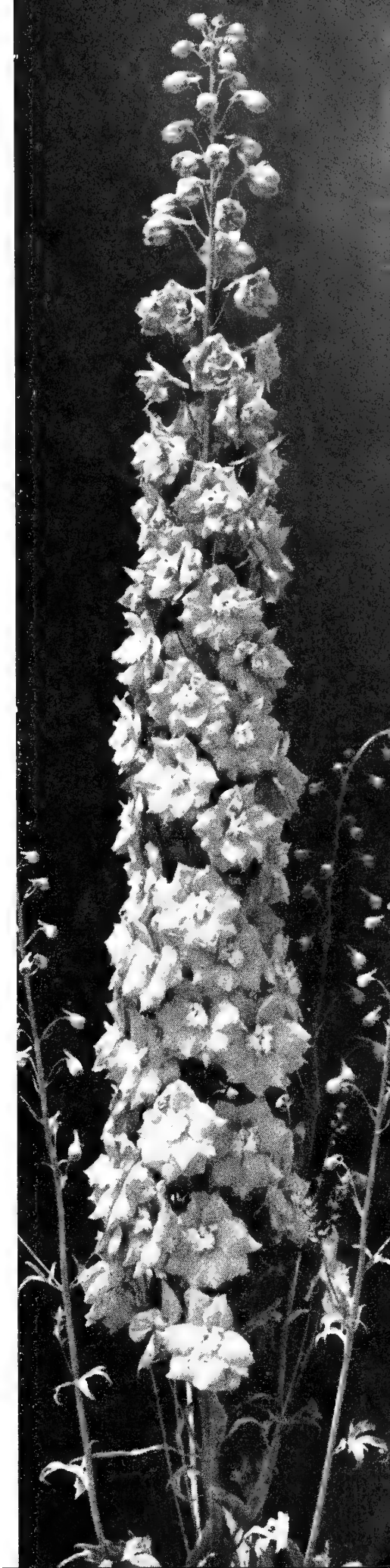
$1.00 per packet (over 400 seeds).
.50 per half packet (over 200 seeds).

Guinevere and King Arthur sold out until July, 1947.

JOIN AMERICAN DELPHINIUM SOCIETY

Beautiful Yearbook containing history of the newest developments in the Delphinium world. Published annually. Membership, $2.00 per year. Write to

AMERICAN DELPHINIUM SOCIETY
Stanley A. Ohala
5406 N. McVickers Ave.
Chicago, Illinois



THE CULTURE OF OUR

Seed . . . Delphiniums can easily be grown from seed which can be sown practically any time of the year, according to the climatic conditions, equipment available or time of flowering desired. Under California conditions, for early spring flowers, sow from June to September; for midsummer blooms, December to January; and for fall blooms, February to April. In regions with severe winters, the early summer sowing, from June to July, is recommended, so that the little plants are well established before the winter sets in. Otherwise, the most practical time to sow is early spring. Seed can be kept in good condition for several years if kept in air-tight containers in a refrigerator. In fact, it is practicable even with fresh seed to place it between two moist blotting papers and leave it directly under the freezing compartment of the refrigerator for at least a week to induce higher germination. For best results, sow in flats in a mixture of two-thirds coarse leaf mold and one-third loam, covering slightly with the same mixture, and moisten thoroughly. To prevent evaporation, cover the flats with newspaper and glass until germination takes place. Immediately after the young plants begin to appear, both the glass and the newspaper should be taken off; however, the plants should be kept shaded and kept moist constantly.

Germination . . . If the seeds do not germinate 100 per cent and the flats are exposed to strong light immediately after the first few plants have appeared, the rest may not germinate at all. Artificial heat can be used for germination in early spring and it will give far better results than the natural heat in summer. To get the best results in germination, bottom heat is necessary, with a cool temperature overhead. This is well supplied under glass in early spring; however, in summer, due to hot weather conditions, it is usually the opposite and this is why many people have failures even with the very freshest seed. At temperatures of 85 degrees Fahrenheit and up, the germination is often very poor and what germinates stands a very good chance of being simply cooked. To prevent this, after the seeds are sown in flats, place them on the floor in a cool room or shed, where they can be kept dark for the first ten days, until germination takes place. Then give light and fresh air, but keep them well protected against any drying out. We have repeatedly checked on seeds which were sown under greenhouse conditions in summer or the cool shed method or a well-shaded lath house, and the results in each case were from 20 to 50 per cent better under lath house conditions than under the greenhouse conditions. Under slow, cool germination practically every seed will gradually come up. Under quick, hot conditions only a few will germinate, the rest remaining dormant in the soil. Dampening off will occur only if flats are kept too wet in the greenhouse, without proper ventilation.

DELPHINIUM HYBRIDS

Transplanting . . . When the second leaves are developed and before the plants are too crowded, prick in flats 3 inches apart in a mixture of two-thirds sandy loam and one-third leaf mold. Keep shaded for two or three weeks; then gradually give more light and, when larger, harden off in full sunlight before planting out in permanent position about two or three feet apart. Open, sunny location is necessary for best development. In shade they will grow too spindly, with only small flower spikes. If too close to walls, they will mildew more than in the open. The ground should be well prepared for planting. A liberal application of well-rotted cow or sheep manure, with a sprinkling of bone meal mixed with the soil, which should be dug a foot deep, will produce fine growth. Heavy, wet soils will require a slight addition of lime. Good drainage and uniform supply of moisture during the growth is essential.

Feeding . . . When the first crop of blooms has faded, cut the flower spikes off just above the foliage and keep slightly dry for two or three weeks, to give the plants time to rest before the new shoots appear above the ground. When this takes place, cut the rest of the old stock off, sprinkle a teaspoonful of ammonium phosphate around each plant, rake it into the soil slightly and water thoroughly. From the new shoots appearing from the ground select two or three of the strongest and break the rest out. The remaining ones will develop into fine spikes again. Do not force a new growth late in autumn; rather, keep the plants on the dry side, because if forced into bringing a third crop late in the season the plants will soon exhaust themselves and gradually die.

Diseases . . . MILDEW will attack plants grown close to a wall, or planted thickly together, especially later in the fall. Sulfur, dusted on the foliage, will act as a preventative before the disease is established. GREEN FLOWER—So far this virus disease has been reported only west of the Rocky Mountains and is most prevalent close to ocean areas. It is transmitted by a species of leaf hopper from infected weeds to the Delphinium plants. All plants showing signs of the disease should be immediately discarded. CROWN ROT may be caused by several fungi prevalent in the eastern and southern sections of the United States where high temperatures and humidity prevail during the growing season. For best information send parts of infected plants to your state university for identification. Further information on this subject can be found in the Yearbooks of The American Delphinium Society.

Length of Life . . . Length of life of Delphinium plants is governed by several factors. In climates with a long resting period in winter, the plants will usually live much longer than in districts such as central and southern California where this period is confined to but one month of the year. Some may die after the first flowering, while others live for years.

PACIFIC STRAIN OF POLYANTHUS PRIMROSES

As the Polyanthus group is the most hardy and easiest to grow of all the Primrose family, succeeding in practically every climate, we have concentrated our work on improving this particular type. Our aim is to develop a wider and clearer color range, taller stems, and larger size of individual flowers and flower heads. After testing all of the important strains in commerce, we spent years of breeding and selecting from some 20,000 seedlings each year. We introduced our strain experimentally at the Golden Gate International Exposition on Treasure Island, where the exhibit, although comparatively small, created such interest that our stock was completely sold out within two weeks. This is, perhaps, the best recommendation our strain could have.

SELECTED PLANTS

Delivery February to End of September

We now grow from 30,000 to 50,000 seedlings annually from which we select only those which meet our standard of quality, and ship them during February and March with flowers on. Later shipments up to the end of September are shipped without flowers. In this way we can offer each year more and more advanced quality, with wider range of shades and larger flowers as each year steps up the progress in breeding. They are the last word in Primroses that money can buy.

COLORS

White	Bronze Blends	Carmine-Rose	Golden Yellow
Scarlet	Flame Shades	New Blends	Violet Blends

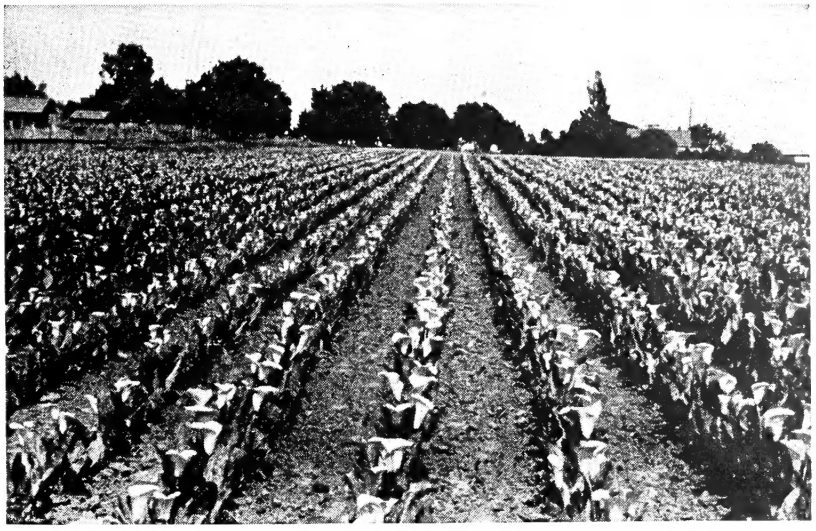
Price . . . 35c each; $3.50 per dozen; $26.00 per 100. F.O.B. Capitola.

Orders for less than 1 dozen not accepted

Seed . . . The seed we are offering is produced by artificial cross-pollination from the most outstanding new seedlings each year. By this method we can offer a quality which is in a class by itself. The production, naturally, is very limited and very costly but only in this way can the finest results be obtained. The new crop is available by July 1, which is also the best time for sowing. We pack approximately 125 seeds to a packet which, under reasonably good conditions, will germinate within two weeks after sowing. All colors listed as per selected plants are available separately or in complete mixture.

Price . . . $1.50 per packet. (Sold out until July, 1947.)

THE CULTURE OF POLYANTHUS PRIMROSES



Seed . . . Seed of Polyanthus Primroses can be sown any time of the year, preferably in spring or early summer, so the seedling will reach flowering size by the next spring. Sow in any light mixture of soil; a good mixture is one-half leaf mold and one-half garden soil. Peat and garden soil with the addition of sand or any other combination can be used so long as the soil is light and rich in humus. Cover the seed only slightly, moisten thoroughly, then cover the flats with burlap to keep them from drying out and place in heavy shade. When germination takes place, in about two weeks, give more light but protect from direct sunlight. Always keep moist. In six to eight weeks the young plants can be transplanted into flats again or directly into the open ground if large enough. In this case they should be protected from direct sunshine. The soil in the garden should be enriched with either old manure if sandy; or leaf mold, peat, and sand, if heavy. Additional feeding in early spring with any quick-acting fertilizer when the growth just commences. This should be preferably an organic fertilizer such as fishmeal or cottonseed meal which will help greatly to produce fine flowering specimens.

After two years the plants become too large and should be split and replanted in fresh soil. The best time for this is immediately after flowering. Plants transplanted late in the season will not get sufficient roots established in time for the flowering season and will then bring only poor flowers.

Primroses are hardy in every part of the United States. The only dangerous pest attacking them is the cutworm, of several varieties, which can be controlled with several baits sold commercially for that purpose.

VISIT OUR GARDENS
in March
when the Primroses are in bloom

CALLA LILIES

The cultural requirements of Calla Lilies are very simple. The pink and yellow Callas, being summer flowering plants, should be planted from January to April in good average garden soil, possibly in slightly shaded places in the warmer districts. Plant the bulbs approximately four inches deep and keep well supplied with moisture during the growing season and gradually withhold water after flowering, if possible. They can be left in the ground for years in regions with mild winters but should be lifted, dried, and stored in a frostless place where winters are severe.

CALLA RHEMANII SUPERBA—New

The finest form of the pink Callas yet offered in cultivation. The seed of this species came from South Africa and it took a number of years to propagate it sufficiently for distribution. It is far superior to the so-called pink Callas that have so far been found in commerce. Flowers are fairly large, pale pink, plant very floriferous. For rock garden and cool borders this is a real acquisition. Delivery December to March.

Price . . . 50c each; $5.00 per dozen; $38.00 per 100.

Calla Elliottiana . . . The yellow Calla Lily has larger flowers than the pink and is a very effective garden plant. Planting time February to April. Delivery of bulbs November to February.

Price . . . 40c each; $4.00 per dozen; $30.00 per 100.

CORNER OF ONE OF OUR LATH-HOUSES WITH SEEDLINGS OF TUBEROUS BEGONIAS